REMARKS

Claims 1-18 are all the claims pending in the application. By this Amendment, Applicant editorially amends claims 1-14. The amendments to claims 1-14 were made for reasons of precision of language and consistency, and do not narrow the literal scope of the claims and thus do not implicate an estoppel in the application of the doctrine of equivalents. The amendments to claims 1-14 were not made for reasons of patentability.

In addition, Applicant adds claims 15-18 in order to provide more varied protection. Claims 15-18 are clearly supported throughout the specification, *e.g.*, pages 10-12 of the specification.

Preliminary Matters

Applicant thanks the Examiner for initialing the form PTO-1449 filed with the Information Disclosure Statement on May 18, 2001. Applicant also thanks the Examiner for acknowledging the claim to foreign priority and for confirming that the certified copy of the priority document was received.

Summary of the Office Action

Claims 1-3, 5, 6, and 9-14 are allegedly rejected under 35 U.S.C. § 103(a) as being unpatentable over US Patent No. 5,416,808 to Witsaman et al. (hereinafter "Witsaman") in view of US Publication No. 2001/0012791 to Miyake et al. (hereinafter "Miyake"). In addition, claim 4 is allegedly rejected under 35 U.S. C. § 103 (a) as being unpatentable over Witsaman in view of Miyake and further in view of Patent No. 6,542,754 to Sayers et al. (hereinafter "Sayers").

Finally, claims 7 and 8 are allegedly rejected under 35 U.S.C. § 103 (a) as being unpatentable

over Witsaman in view of Miyake and further in view of U.S. Patent Publication No.

2002/0007453 to Nemovicher (hereinafter "Nemovicher").

Claim Rejections under 35 U.S.C. § 103

       Claims 1-3, 5, 6, and 9-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable

over Witsaman in view of Miyake. Applicant respectfully traverses this rejection and

respectfully requests the Examiner to reconsider this rejection in view of the comments, which

follow. Of these claims, only claims 1 and 13 are independent.

       Independent claim 1 recites a unique combination of features including "a receiving

means for receiving information comprising a first time information having a first time data

attached with a first reliability data...wherein the second reliability data indicates a reliability of

the first time information included in the second time information and the second reliability data

is calculated in a device transmitting the information." The Examiner asserts that claim 1 is

directed to a network system connecting plural information communicating devices for

communicating information to each other through a communication network, and is obvious in

view of Witsaman and Miyake.

       The Examiner asserts that Witsaman's time received from a satellite by a paging station

is equivalent to the receiving information as set forth in claim 1 and that Witsaman's time

difference factor calculated in the paging station or the maintenance operation point (hereinafter

"MOP") is equivalent to the second reliability data calculated in the transmitting device, as set

9

forth in claim 1 (see pages 2-3 of the Office Action). The Examiner acknowledges that

Witsaman does not teach or suggest transmitting first time information with a second reliability

data attached. The Examiner, however, alleges that Miyake cures the deficient teachings of

Witsaman, and that one of ordinary skill in the art would have been motivated to combine the

two references (page 3 of the Office Action).

Applicant respectfully disagrees. Applicant has carefully studied Witsaman's discussion

of a clock synchronization technique and Miyake's discussion of the base station transmitting

satellite time to a number of mobile stations, which are not similar to receiving time data with a

first reliability data and transmitting the time data with a second reliability data attached as set

forth in claim 1.

In the conventional systems, there is a problem of the time in various devices being

inconsistent. In each device of the conventional systems, a time error exists. These time errors

are corrected manually or by transmitting the received satellite time by a correcting host device

such as a mobile station. When the correcting host device is used, a processing load of this

machine may be high as it is forced to transmit the satellite time to the other devices in the

system. As a result, the transmitted time may be inaccurate because the processing time of the

host machine is not taken into account. On the other hand, in the system set forth in claim 1,

"the second reliability data is calculated in a device transmitting the information."

Witsaman is no different from the convention systems described above. In Witsaman, to

synchronize a plurality of paging stations, a satellite time is directly transmitted to each paging

station or to a maintenance operation point 58. The MOP 58 calculates and reports the

difference between the time of the paging station and the satellite clock back to the paging

station (*see* Abstract). In Witsaman, just like in the conventional techniques described above, the

processing time of the MOP or the processing time in the paging station is not taken into

account.

In particular, Witsaman teaches a clock synchronization system 50 with a number of

paging stations 24, a satellite 56 and a MOP 58 with a clock 46. Each paging station 24 has a

controller 38, which is used to regulate the broadcast of pages and a clock 46 with a time counter

controller 54 and a counter 52. The time counter controller 54 receives reference-time signals

from the global positioning system (GPS) satellite 56. The time counter controller 54

synchronizes the counter 52 by periodically comparing the counter's local-time signal to a

reference-time signal received from the satellite 56. As a result of this comparison, the time

counter controller 54 resets the counter 52 so that the counter generates the correct local-time

signal. The time counter controller 54 also adjusts the rate at which the clocking signal is sent to

counter 52 to ensure that the counter continues to indicate an accurate local-time signal (Fig. 2;

col. 5, lines 47 to 67).

In another embodiment, Witsaman teaches the MOP 58 comparing the reference time

from the GPS with the time in its clock 46 and adjusts its time accordingly. The local-time

signals generated by one or more of the clocks 46 located at the paging stations 24 are compared

to the reference time maintained by the MOP 58. The MOP 58 then sends each time counter

controller 54 a signal indicating a time difference factor between the two. The time counter

controller 54 then uses the time difference factor to determine the extent to which the counter 52

initial state needs to be reset and the extent to which the clocking signal needs to be adjusted

(col. 6, lines 1 to 32).

In Witsaman, however, the paging stations either receive a satellite time or the time

difference calculated by the MOP. In other words, Witsaman fails to teach or suggest receiving

both the time and the reliability data. The paging stations receive either the satellite time from

GPS or the time difference from the MOP. Moreover, in Witsaman, the paging units do not

transmit data to other paging units. MOP transmits only the time difference calculated by its

controller. In other words, Witsaman clearly fails to teach or suggest attaching a second

reliability data to the time information received.

In short, Witsaman is no different from the prior art discussed above. Witsaman fails to

consider the processing time of the unit receiving and transmitting time information, *e.g.*, MOP.

In other words, in Witsaman, the time transmitted to the paging stations, is not adjusted by the

period of time it takes the MOP to calculate the time difference.

Miyake fails to cure the deficient teachings of Witsaman. Miyake is similar to the

conventional techniques discussed above. Miyake teaches a base station receiving time from a

GPS satellite 1 and transmitting this time to a number of mobile stations 5 (*see* Abstract and ¶¶

7-9). Miyake clearly fails to teach or suggest a receiving means which receives time data

attached with reliability data. In Miyake, the base station receives GPS satellite time and the

mobile stations receive this forwarded time from the base station. Similarly, Miyake fails to

teach or suggest transmitting the received time data with second reliability data attached. In

Miyake, the base station only forwards the received satellite time. In short, Miyake fails to

account for the processing time of the base station.

In addition, Applicant respectfully submits that one of ordinary skill in the art would not

have been motivated to combine the two references in the manner indicated by the Examiner.

The Examiner alleges that one of ordinary skill in the art would have been motivated to

incorporate the transmitted GPS time as taught by Miyake with Witsaman's transmitting time

difference information. This time difference information is used by the paging stations to

determine how off the paging terminal clock is with respect to the satellite time (see page 3 of

the Office Action). In Witsaman's system, however, the point of transmitting the time difference

is to synchronize the paging stations to the reference clock of MOP. Witsaman is concerned

with synchronizing the paging stations to one reference clock. In other words, Witsaman teaches

synchronization to a reference clock in MOP or to the GPS time.

Moreover, with the time difference transmitted by the MOP, there appears to be no point

in transmitting the GPS time. If the MOP, as taught by Witsaman, is to synchronize its time to

the GPS time, then ideally, the paging stations receive the value (time difference) needed to

synchronize with the GPS time. In short, transmitting both the GPS time and the time difference

makes little sense for at the very least it is unclear how the paging station would use the two

values (the time difference received from the MOP and the GPS time).

Finally, Witsaman and Miyake cannot be combined as proposed by the Examiner.

Witsaman teaches using MOP "in locations where it is too expensive or physically difficult to

provide a time counter controller 54 [of the paging stations] with the GPS satellite-receiving

equipment" (col. 6, lines 8 to 13). In other words, Witsaman teaches that <u>when the paging</u>

<u>stations cannot receive the GPS time</u>, transmitting time difference from the MOP. That is,

Witsaman teaches the paging stations receive time from the satellite whenever possible, and

when not possible only then the MOP is used. In short, Witsaman and Miyake cannot be validly

combined with each other in a rejection under 35 U.S.C. § 103(a).

Therefore, "a receiving means for receiving information comprising a first time

information having a first time data attached with a first reliability data...wherein the second

reliability data indicates a reliability of the first time information included in the second time

information and the second reliability data is calculated in a device transmitting the information,"

as set forth in claim 1 is not taught or suggest by the combined teachings of Witsaman and

Miyake, which lack receiving time data with reliability data and transmitting the time data with

another reliability data attached. For at least these exemplary reasons, Applicant respectfully

submits that independent claim 1 is patentable over the combined teachings of Witsaman and

Miyake. Applicant therefore respectfully requests the Examiner to withdraw this rejection of

independent claim 1. Also, Applicant respectfully submits that claims 2-3, 5, 6, and 9-12 are

patentable at least by virtue of their dependency.

In addition, dependent claim 9 recites "wherein said second reliability data attached to

said first time information is based on a processing time required from receiving to transmitting

in the transmitting information communicating device." The Examiner alleges that Witsaman at

col. 7, lines 2 to 17 teach these features. Col. 7, lines 2 to 17 recite:

> The initial synchronization and subsequent
> advancement of the <u>counter 52 are controlled</u>
> <u>by the time counter controller 54.</u> The time

> counter controller 54 includes a central
> processing unit 64, such as a Motorola 68302
> 32-bit microprocessor, along with associated
> memory circuits, that <u>compares the elapsed-</u>
> <u>time record of counter 52 with the reference</u>
> <u>time obtained from an external source</u>. As a
> result of this comparison, the central
> processing unit 64 will <u>reset the counter 52</u>
> <u>elapsed time so that it is in</u>
> <u>synchronization with the reference time</u>. The
> central processing unit 64 <u>also controls the</u>
> <u>frequency of the output signal</u> of a voltage-
> controlled oscillator (VCO) 66; <u>this is the</u>
> <u>signal that is used to establish the</u>
> <u>clocking signal</u> that is applied to the
> counter 52, emphasis added.

In other words, the above cited passage only teaches correcting the internal time based on the

reference signal received, and adjusting the frequency of the internal counter based on the

correction made. Clearly, the passage above fails to teach or suggest taking into account the

processing time from the receiving stage to the transmitting stage, for example. Miyake fails to

cure the deficient teachings of Witsaman, as explained above. For at least this additional reason,

dependent claim 9 is patentable over the combined teachings of Witsaman and Miyake.

Next, Applicant respectfully traverses this rejection with respect to claim 13, which

recites a unique combination of features including "a receiving means for receiving information

comprising a first time information having a first time data attached with a first reliability

data...wherein the second reliability data indicates a reliability of the first time information

included in the second time information and the second reliability is calculated based on a device

transmitting the information." These features are similar to the features argued above with

respect to claim 1, those arguments are respectfully submitted to apply with equal force here.

For at least substantially the same reasons, therefore, Applicant respectfully requests the

Examiner to withdraw this rejection of the independent claim 13 and its dependent claim 14.

Next, Applicant addresses the rejection of claim 4, which is allegedly unpatentable over

Witsaman and Miyake and further in view of Sayers. Applicant respectfully traverses this

rejection with respect to the dependent upon claim 1, claim 4. Applicant has already

demonstrated that the combined teachings of Witsaman and Miyake do not meet all the

requirements of independent claim 1. Sayers is relied upon only for its teaching of a

communication network being an internet. Clearly, Sayers does not compensate for the above-

identified deficiencies of Witsaman and Miyake. Together, the combined teachings of these

references would not have (and could not have) led the artisan of ordinary skill to have achieved

the subject matter of claim 1. Since claim 4 dependents upon claim 1, it may be patentable at

least by virtue of its dependency.

Finally, claims 7 and 8 are rejected as being unpatentable over Witsaman and Miyake and

further in view of Nemovicher. Applicant respectfully traverses this rejection with respect to the

dependent upon claim 1, claims 7 and 8. Applicant has already demonstrated that the combined

teachings of Witsaman and Miyake do not meet all the requirements of independent claim 1.

Nemovicher is relied upon only for its teaching of transmission via email and as such clearly

fails to compensate for the above-identified deficiencies of Witsaman and Miyake. Together, the

combined teachings of these references would not have (and could not have) led the artisan of

ordinary skill to have achieved the subject matter of claim 1. Since claims 7 and 8 dependent

upon claim 1, they may be patentable at least by virtue of their dependency.

In addition, with respect to the dependent claim 7, the Examiner alleges that Nemovicher

teaches information time being transmitted via E-mail as required in the dependent claim 7 (see

pages 5-6 of the Office Action). Applicant respectfully disagrees. Applicant has carefully

studied Nemovicher's teachings of the secure electronic mail system, which only mentions a

clock approximately three times throughout the lengthy discussion, and respectfully submits that

Nemovicher does not teach or suggest transmitting time information via E-mail. Nemovicher

teaches placing a time stamp on an email, which is driven by an atomic clock, which receives its

time from a satellite and is thus very accurate (¶ 57). To be exact, ¶ 57 recites:

> Once a secure e-mail is received by secure
> mail server 80, the message is time and date
> stamped. Time and date stamping provides the
> message with an indication of the time and
> date received by secure mail server 80. Time
> and date functions with regard to stamping
> are assisted and processed by
> synchronization with, for example, <u>atomic
> clocks providing synchronization signals
> through satellite communications</u>.

In short, Nemovicher teaches time stamping each email and not transmitting second time

information in an E-mail from said transmitting means, as recited in claim 7. Moreover, one of

ordinary skill in the art would not have been motivated to combine the references in the manner

suggested by the Examiner. One of ordinary skill in the art would never have turned to

Nemovicher, which is from <u>a different field of endeavor</u>, *e.g.*, see its classification, and which

<u>addresses a different problem</u> of transferring email messages with virus checking and high level

of privacy between two computers (¶¶ 7-8 and 18-19). Therefore, Witsaman, Miyake and

Nemovicher cannot be validly combined with each other in a rejection under 35 U.S.C. § 103(a).

For at least this additional reason, dependent claim 7 is patentable over the combined teachings

of Witsaman, Miyake and Nemovicher.

New Claims

New claims 15-16 are patentable over the prior art references cited by the Examiner at

least by virtue of their dependency on claim 1. New claim 17 is patentable over the prior art

references cited by the Examiner at least by virtue of its recitation that "the processing time

comprises a lapsed period of time from a moment when the first communicating device received

the time information to a moment when the first communicating device is ready to transmit the

received time information." Claim 18 is patentable at least by virtue of its dependency on claim

17.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed

to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is

kindly invited to contact the undersigned attorney at the telephone number listed below.

Amendment under 37 C.F.R. § 1.111   Attorney Docket No.: Q64099
U.S. Application No.: 09/859,459

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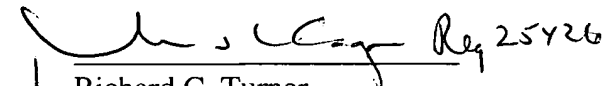overpayments to said Deposit Account.

Respectfully submitted,

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